



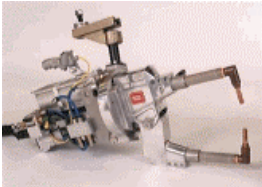
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typical applications

projection welders



manual stations



robot stations



WS1000 welding control

data sheet



Value-priced features and flexibility

The WS1000 has been designed as an easy to use welding control timer intended for the customer who requires monitoring and quality welds. This timer has spot and repeat sequences with selectable phase angle/constant current/voltage compensation control. A simple to use LCD and keypad allows up to 64 programs of weld settings to be entered. The timer can be supplied in a combination cabinet with circuit breaker and SCR to suit all machine kVA sizes.

features	benefits
single/dual gun operation	versatile
phase angle/constant current/voltage compensation modes	quality welds
integral programmer	always available
50 or 60 Hz operation	international
64 user-defined programs	store settings for different materials and thicknesses
retract control	suitable for most types of gun operation
stepper control	can be used for electrode maintenance
weld current monitoring	quality welds
compatible with BF ENTRON medium frequency inverter contactor output	reduced weld times, smaller transformers safety

options

- WS98-1000 PC software for programming and monitoring
- ELR/1 earth-leakage relay
- 2-hand start unit

configurations

WS1000, cabinet and SCR combinations are shown in document 91-10-00-00-16

WS1000 welding control

data sheet

program parameters x 64 for each gun

type	spot/repeat standard/extended
weld 1 mode *	phase angle/constant current
weld 2 mode	phase angle/constant current
presqueeze	0..99 cycles
squeeze	1..99 cycles
weld1 *	0..99 cycles
cool1 *	0..99 cycles
weld2	0..99 cycles
cool2	0..99 cycles
pulses	1..9
hold	1..99 cycles
off	0..99 cycles
inhibit	on/off
heat1 *	0..99.9 %
heat2	0..99.9 %
current1 *	2.5..80 kA
current2	2.5..80 kA

* extended mode only

monitoring parameters x 64 for each gun

monitor	on/off
weld1 high/pre/low limit *	0..100 %
weld2 high/pre/low limit	0..100 %
fail count	0..9

* extended mode only

electrode parameters 1 for each gun

stepping	on/off
dressing	on/off
feedback	primary/secondary
secondary/primary ratio	10:1..200:1
secondary/primary offset	-9.99..+9.99 kA
toroid sensitivity	100..200 mV/kA
maximum dressings	0..9999
dressing point	0..9999
reset point	0..9999
dressings done	0..9999 (read only)
welds per component	0..9999
prewarning	0..9999
electrode lifetime	0..99999
point on curve	0..99999 (read only)
total welds	0..99999 (read only)
programmable curves for phase angle and constant current for weld 1 and weld 2	

configuration parameters

guns	1/2
mode	ac/voltage comp/mf
2 nd stage	on/off
maximum weld time	10..99 cycles
mf minimum current	0..99.9 kA
mf maximum current	0..99.9 kA
supply voltage	200..500 V
gun 1 enable	on/off
gun 1 monitoring	on/off
gun 1 toroid test	on/off
gun 2 enable	on/off
gun 2 monitoring	on/off
gun 2 toroid test	on/off
frequency	50/60 Hz
retract	standard/hi-lift/robot
contactor	off..240 seconds
programmable blocking conditions	

environmental

temperature	
- operating	0° to +50°C
- storage	-25° to +70°C
humidity	
- operating	up to 80% (relative)
- storage	10% to 90%

dimensions

height	330 mm
width	250 mm
depth	38 mm
weight	3.3 kg

power/synchronisation requirements

maximum input current	1 A @ 24 V dc ±20%
line frequency	50/60 Hz ±1Hz

I/o ratings

2 outputs	500 mA @ 24 V dc each
6 outputs	100 mA @ 24 V dc each
18 inputs	10 mA @ 24 V dc each (max)

Information in the document is subject to change without notice.

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